

H. NOLL.  
TOY.

APPLICATION FILED AUG. 12, 1908.

966,761.

Patented Aug. 9, 1910.

Fig. 1.

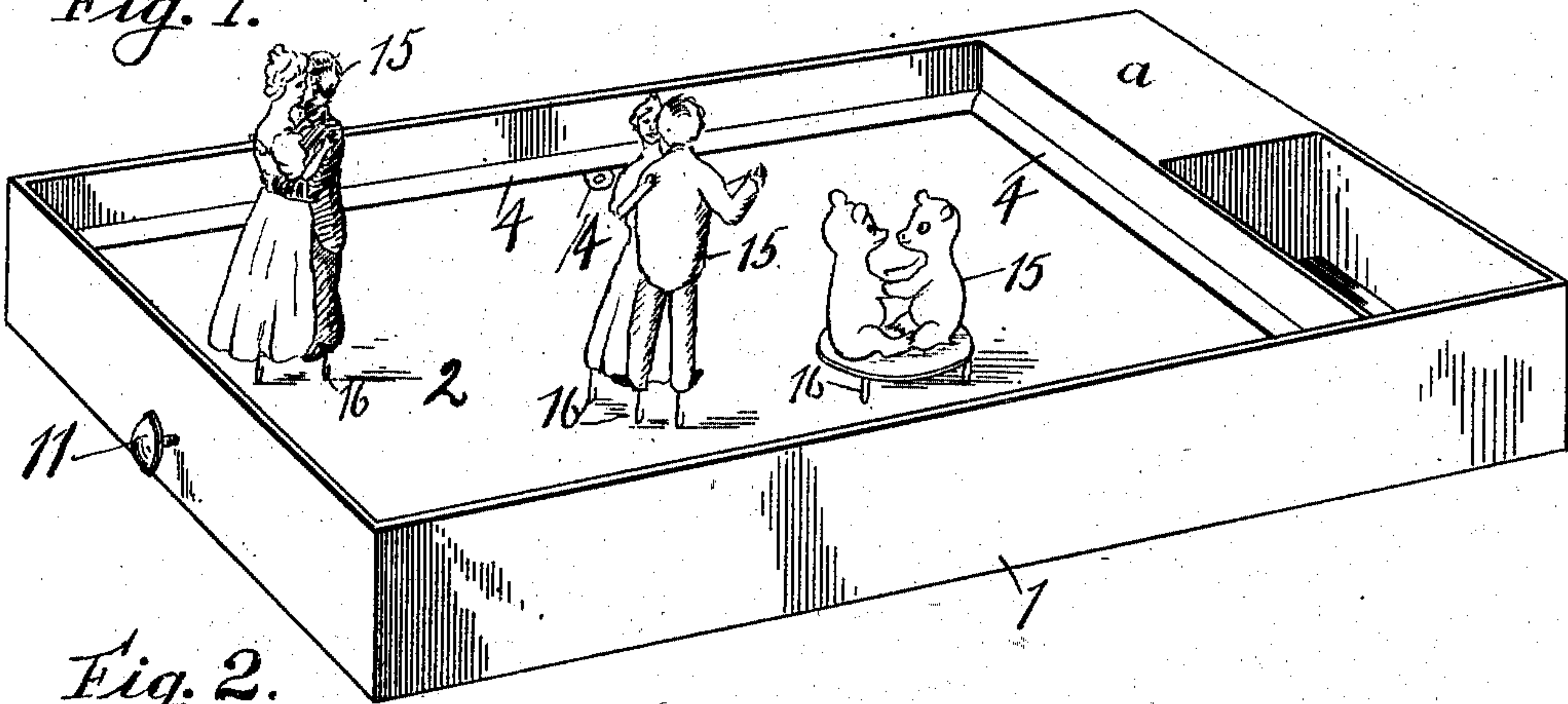


Fig. 2.

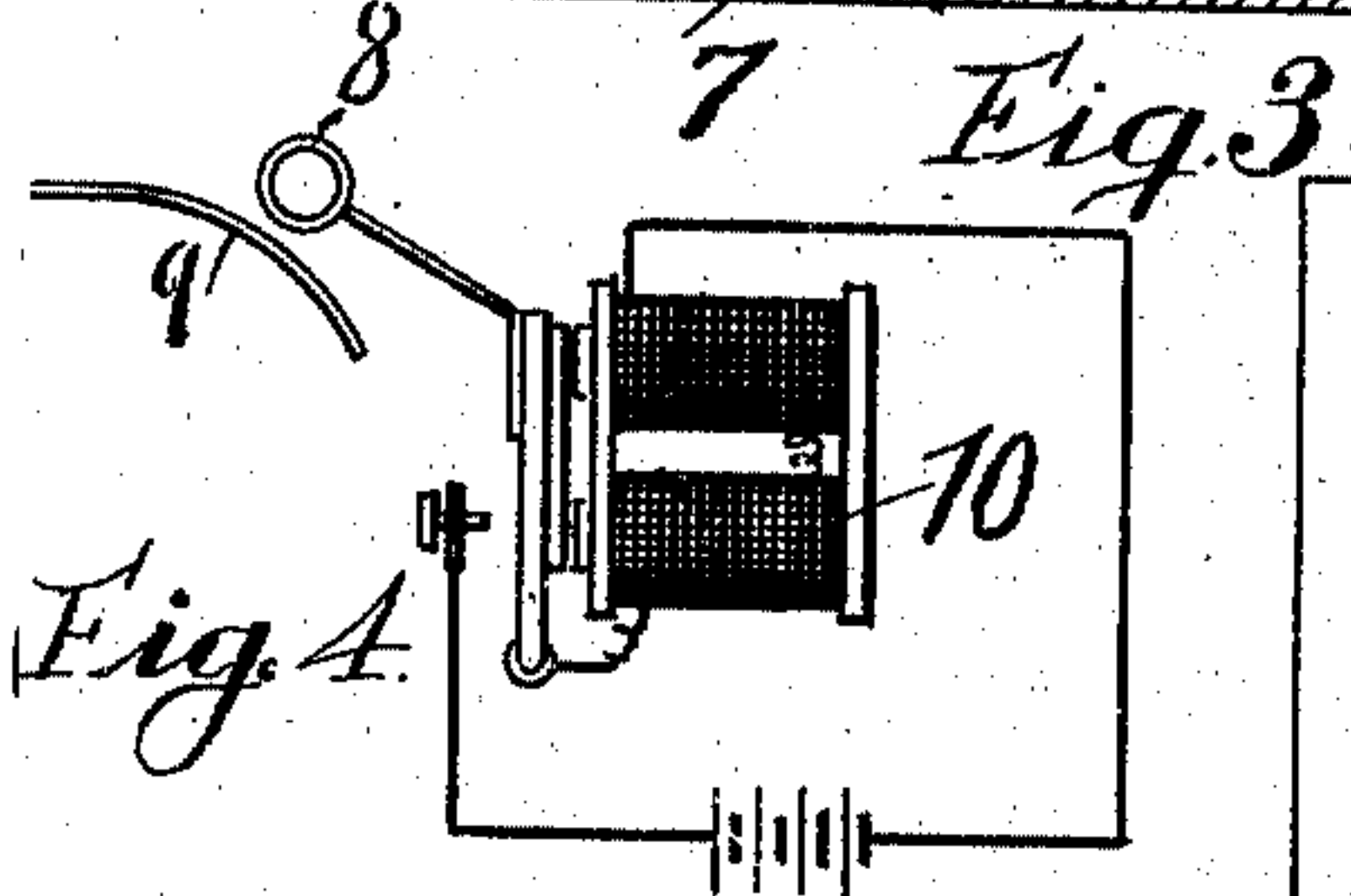
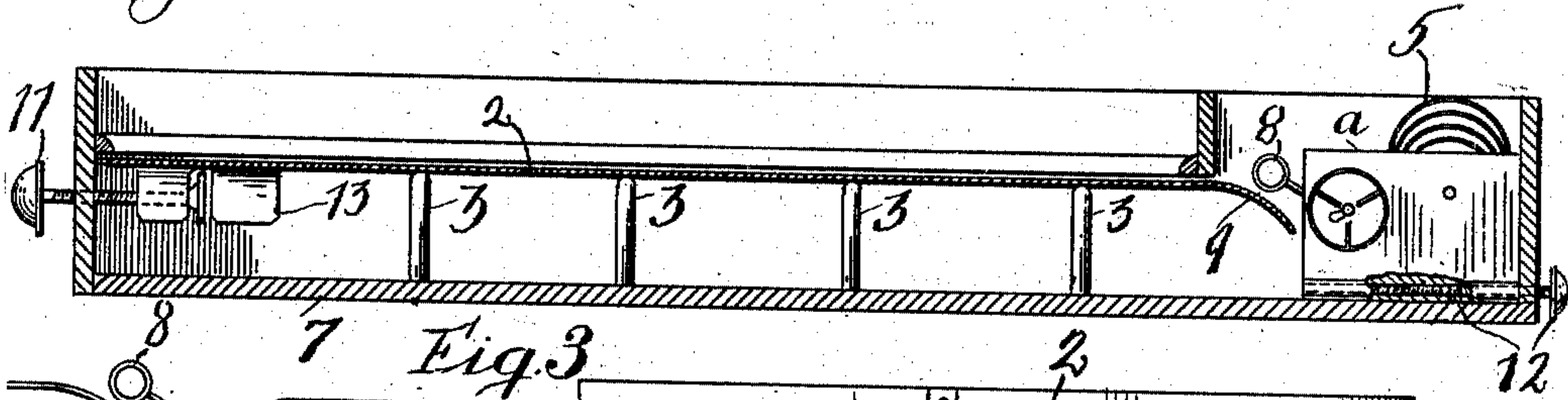


Fig. 4.

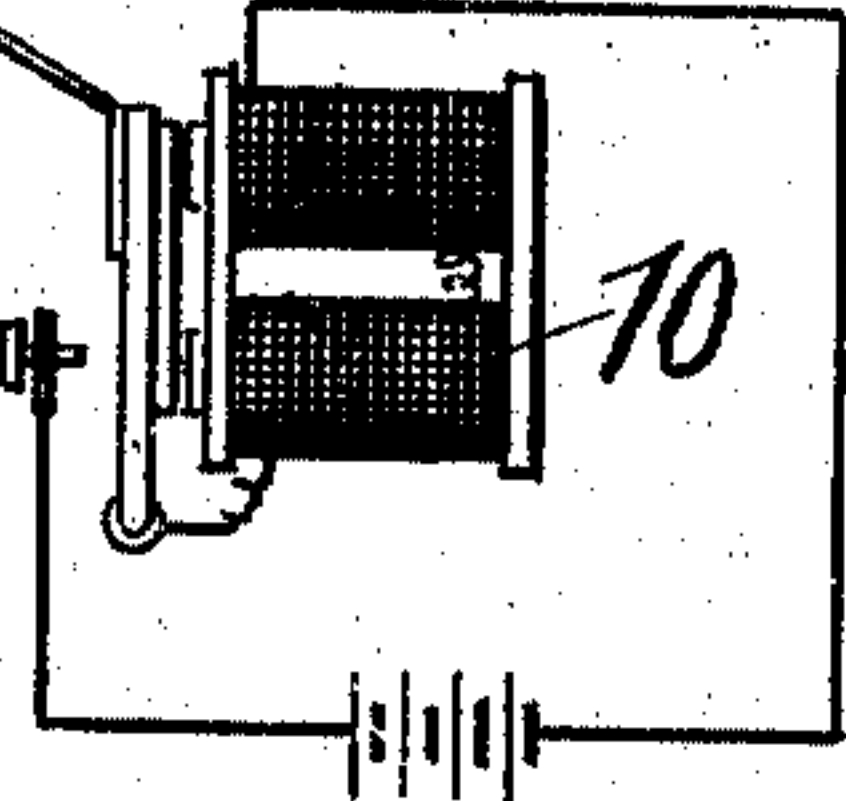


Fig. 5.

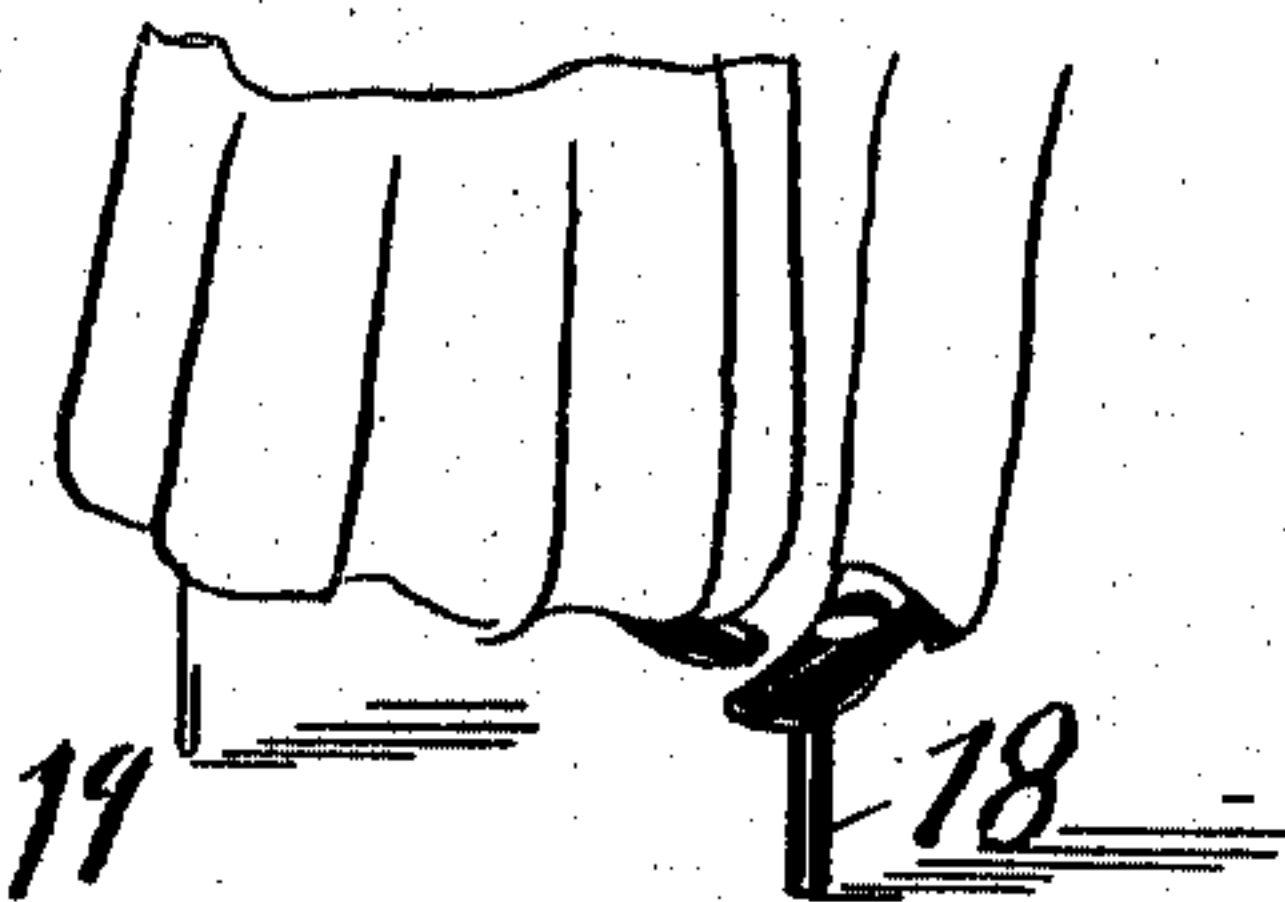
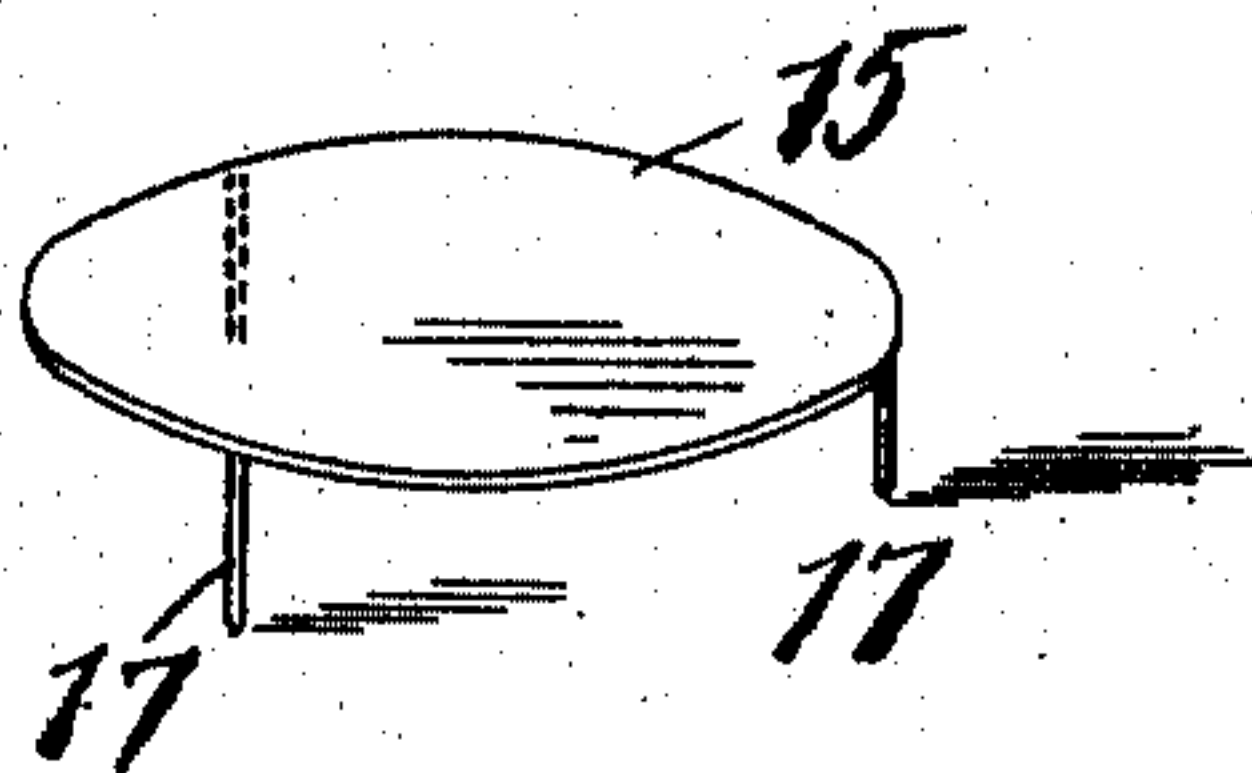


Fig. 6.



Witnesses:

Arthur C. Lee

John E. Wheeler

Inventor:  
Henry Noll.

By Medina and Griffin  
Attys.



# UNITED STATES PATENT OFFICE.

HENRY NOLL, OF ALAMEDA, CALIFORNIA.

TOY.

966,761.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed August 12, 1908. Serial No. 448,186.

*To all whom it may concern:*

Be it known that I, HENRY NOLL, a subject of the Emperor of Germany, residing at Alameda, in the county of Alameda and State of California, have invented a new and useful Improvement in Toys, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

My invention relates to toys and has for its object to provide a novel toy wherein figures such as dancers, racing horses, pugilists and the like, are given movements appropriate to their characters.

I accomplish my object by means illustrated in the accompanying drawing of which—

Figure 1 is a perspective view of a box, showing the general idea of my invention; Fig. 2 is a vertical sectional view through said box; Fig. 3 a perspective view of a portion of the floor of said box; Fig. 4 a detail view showing electro-magnetic means for operating my device; Fig. 5 a detail view showing the bottom of the figures forming part of my device and the supporting wires thereon; Fig. 6 a perspective view of a plate, showing a modified form of supporting wires.

The same numeral of reference marks the same part throughout the several views.

In general my invention consists in providing a vibratory floor, and figures of any desired form having wire supports adapted to rest on the floor. Said wire supports are flexible, so that they may be bent in any direction from the vertical and at an angle thereto. Moving the floor and hammer nearer together and farther apart varies the degree of the vibrations by varying the force of the blows on the floor; whereby the movements characteristic of the object which the figure represents may be imparted to the figure by vibrating the floor, preferably in an up and down direction. For example if the wire supports are bent to the right of the dancing figures, as shown in Fig. 1, the up and down movements of the floor would set up a rotary movement of the figures to the right continuous while the vibrations lasted; and if the wires are turned toward the left an opposite rotation would result. Perfect verticality of the wires would produce on a level floor only up and down movements of the figures, while bending the wires backward symmetrically would throw forward the line of direction

and cause the figures to move forward in a straight line, while bending the wires forward would cause the figures to move backward. Therefore the figures may be given movements characteristic of the objects they represent by bending the supporting wires in the appropriate direction.

I provide a box 1 having a floor 2 loosely supported in any suitable manner as by the posts 3 and having rims 4 mounted above the floor so that said floor may vibrate under the appropriate stimulus preferably in an up and down direction.

To produce the vibration of the floor 2 a spring motor 5 is provided to cause the hammer 8 to vibrate rapidly and strike the floor repeated blows at 9. Any suitable driving mechanism may be used for this purpose, the particular means of driving the hammer being immaterial. The electro-magnetic driving mechanism shown in Fig. 4 may also be used. This comprises a suitable magnet 10 having a hammer 8 which is adapted to strike on the projection 9, as in the first case.

To produce greater or less vibrations of the floor, I provide means for adjusting the force of the hammer's blows on the floor, which may be accomplished by arranging for increasing or diminishing the strength of the operating mechanism in any suitable manner, or by moving the floor and hammer nearer together or farther apart. This I accomplish by either the adjusting screw which moves the floor, or the adjusting screw 12 which moves the operating mechanism. The adjusting mechanism is provided with guides, as the screw 11 and block 13, the slot and pin 14. The pin 14, is engaged in a slot shown in Fig. 3, whereby the floor is guided in its longitudinal adjustment to and from the striking mechanism, by the action of screw 11, against block 13, in one direction, and against block 20, in the other, thus adjusting the force of the hammer's blows.

The figures 15 are formed into any desired shapes and have projecting below them, wires 16, which may be bent in any desired direction from the line of direction through the center of gravity, as above described, the direction thereof determining the movements imparted to the figures. The wires may be single as at 17 in Fig. 6, or doubled as at 18, or partly doubled as at 19 both in Fig. 5. By setting the figures, their



characteristic movements may be given them on vibrating the floor, and horses may be made to race, dancers to dance either forward, backward, sidewise, up and down, or  
5 rotatively, pugilists to move to and from each other, and animals caused to move in a manner simulating the movements of the living creatures.

10 Having described my invention what I claim as new and desire to secure by Letters Patent of the United States, modifications within the scope of the claims being expressly reserved, is:

15 1. In a toy, figures of objects having wire feet adjusted to give said figures characteristic movements on a vibrating floor.

2. In a toy, figures of objects having wire feet bent in particular directions for giving

said figures movements on a vibrating floor characteristic of the objects which they represent. 20

3. A toy comprising the combination of figures of objects having wire feet bent in particular directions for giving said figures movements on a vibrating floor characteristic 25 of the objects which they represent, with a vibratable floor, mechanism for vibrating the same, and means for adjusting the degree of vibration thereof.

In testimony whereof I have set my hand 30 this 31st day of July A. D. 1908, in the presence of the two subscribed witnesses.

HENRY NOLL.

Witnesses:

C. P. GRIFFIN,  
EDITH W. BURNHAM.